```
=> d his

     (FILE 'HOME' ENTERED AT 15:24:30 ON 18 APR 2008)

     FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPATOLD, USPAT2' ENTERED AT
     15:24:53 ON 18 APR 2008
L1       604596 S (SINGLE OR MONO)(8A)(CRYSTAL?)
L2        61094 S (GA OR GALLIUM)(8A)(NITRIDE#)
L3        58411 S (NH3 OR AMMONIA)(8A)(SOLVENT# OR LIQUID#)
L4         3904 S (MINERALIZER#)
L5         2083 S (FEEDSTOCK#)(10A)(TRANSIT? OR CHANG? OR MORPH?)
L6         2534 S L2 AND (POLYCRYSTAL?)
L7      7554363 S (METAL?)

=> s l1 and l2 and l3 and l4 and l5 and l6 and l7
L8           2 L1 AND L2 AND L3 AND L4 AND L5 AND L6 AND L7

=> d l8 1-2 abs,bib

L8   ANSWER 1 OF 2  USPATFULL on STN
AB     A process for obtaining bulk mono-crystalline
       gallium-containing nitride, eliminating impurities
       from the obtained crystal and manufacturing substrates made of
       bulk mono-crystalline gallium-containing
       nitride has been now proposed. According to the invention, the
       process for obtaining of mono-crystalline
       gallium-containing nitride from the gallium
       -containing feedstock in a supercritical ammonia-containing
       solvent with mineralizer addition is characterized in
       that the feedstock is in the form of metallic gallium and the
       mineralizer is in the form of elements of Group I and/or their
       mixtures, and/or their compounds, especially those containing nitrogen
       and/or hydrogen, whereas the ammonia-containing
       solvent is in the form of the mineralizer and
       ammonia, there are two temperature zones in each step of the
       process, and the feedstock is placed in the dissolution zone, and at
       least one mono-crystalline seed is deposited in the
       crystallization zone, and following the transition of the
       solvent to the supercritical state, the process comprises the first step
       of transition of the feedstock from the
       metallic form to the polycrystalline gallium
       -containing nitride, and the second step of crystallization of
       the gallium-containing nitride through gradual
       dissolution of the feedstock and selective crystallization of
       gallium-containing nitride on at least one
       mono-crystalline seed at the temperature higher than
       that of the dissolution of the feedstock, while all the vital components
       of the reaction system (including the feedstock, seeds and
       mineralizer) invariably remain within the system throughout the
       whole process, and consequently bulk mono-crystalline
       gallium-containing nitride is obtained. The invention
       relates also the the post-treatment (slicing, annealing and washing) of
       the thus obtained crystals. The improved process and the bulk
       monocrystals obtained thereby are intended mainly for use in the field
       of opto-electronics.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN     2006:44069  USPATFULL
TI     Process for obtaining bulk mono-crystalline
       gallium-containing nitride
IN     Dwilinski, Robert, Warsaw, POLAND
```

Doradzinski, Roman, Warsaw, POLAND
Garczynski, Jerzy, Lomianki, POLAND
Sierzputowski, Leszek, Union, NJ, UNITED STATES
Kanbara, Yasuo, Anan-shi, JAPAN
PA AMMONO SP. z o.o., Warsaw, POLAND, 00-377 (non-U.S. corporation)
NICHIA CORPORATION, Anan-shi, JAPAN, 774-8601 (non-U.S. corporation)
PI US 2006037530 A1 20060223
AI US 2003-537804 A1 20031211 (10)
WO 2003-JP15904 20031211
20050607 PCT 371 date
PRAI PL 2002-357697 20021211
PL 2003-357698 20021211
PL 2003-357699 20021211
PL 2003-357700 20021211
PL 2003-357701 20021211
PL 2003-357702 20021211
PL 2003-357703 20021211
PL 2003-357705 20021211
DT Utility
FS APPLICATION
LREP MORRISON & FOERSTER LLP, 1650 TYSONS BOULEVARD, SUITE 300, MCLEAN, VA, 22102, US
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN 8 Drawing Page(s)
LN.CNT 1939
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 2 OF 2 USPATFULL on STN
AB The invention relates to new improvements in a process for crystal growth in the environment of supercritical ammonia-containing solution, which are based on use of specific azide mineralizers and result in the improved bulk Group XIII element nitride monocrystals, in particular balk monocrystalline gallium -containing nitride, intended mainly for variety of nitride-based semiconductor products such as various opto-electronic devices. The invention further relates to a mineralizer used for supercritical ammonia-containing solution which comprises at least one compound selected from the group consisting of LiN.sub.3, NaN.sub.3, KN.sub.3, and CsN.sub.3.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 2006:37787 USPATFULL
TI Process for obtaining of bulk monocrystalline gallium -containing nitride
IN Dwilinski, Robert, Warsaw, POLAND
Doradzinski, Roman, Warsaw, POLAND
Garczynski, Jerzy, Lomianki, POLAND
Sierputowski, Leszek P., Union, NJ, UNITED STATES
Kanbara, Yasuo, Anan-shi, JAPAN
PA AMMONO. Sp. z.o.o., Warsaw, POLAND (non-U.S. corporation)
NICHIA CORPORATION, Anan-shi, JAPAN (non-U.S. corporation)
PI US 2006032428 A1 20060216
AI US 2003-519141 A1 20030417 (10)
WO 2003-PL40 20030417
20041227 PCT 371 date
PRAI PL 2002-354740 20020626
PL 2003-357697 20021211
DT Utility
FS APPLICATION
LREP MORRISON & FOERSTER LLP, 1650 TYSONS BOULEVARD, SUITE 300, MCLEAN, VA,

22102, US
CLMN Number of Claims: 30
ECL Exemplary Claim: 1
DRWN 8 Drawing Page(s)
LN.CNT 1293
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>